

|   | Type | L # | Hits   | Search Text  | DBs   | Time Stamp          |
|---|------|-----|--------|--|---|---------------------|
| 1 | BRS  | L1  | 38875  | (mailing or frank or mail or post or franking or shipment or shipping or ship) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:19 |
| 2 | BRS  | L2  | 648    | 1 near5 (compare or comparing or comparison or compared)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:19 |
| 3 | BRS  | L3  | 127    | 1 near5 (ranking or shopping or shop or rank or auto)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:19 |
| 4 | BRS  | L4  | 764    | 2 or 3   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:20 |
| 5 | BRS  | L5  | 162376 | (compare or comparing or comparison or compared) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating)                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:20 |
| 6 | BRS  | L6  | 10863  | (ranking or shopping or shop or rank or auto) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating)                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:20 |

|    | Type | L # | Hits   | Search Text  | DBs   | Time Stamp          |
|----|------|-----|--------|--|---|---------------------|
| 7  | BRS  | L7  | 351    | (5 or 6) near5 (mailing or frank or mail or post)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:20 |
| 8  | BRS  | L8  | 364    | (5 or 6) near5 (franking or shipment or shipping or ship)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:21 |
| 9  | BRS  | L9  | 619    | (7 or 8) and 4   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:21 |
| 10 | BRS  | L10 | 569087 | (pcmia or card or smartcard or vault or module or unit or device or memory or nvm or psd or psm or ped or register) near5 (account or postage or value or accounting or ascending or descending) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:21 |
| 11 | BRS  | L11 | 131    | 9 and 10<br><i>Scanned Ti, Ab, Kwic all</i>  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>15:22 |

|   | Document ID   | Issue Date | Inventor                          | Current OR | Current XRef                    | Pages |
|---|---------------|------------|-----------------------------------|------------|---------------------------------|-------|
| 1 | US 6321214 B1 | 20011120   | Thiel; Wolfgang                   | 705/408    |                                 | 47    |
| 2 | US 6061667 A  | 20000509   | Danford-Klein;<br>Henrik et al.   | 705/400    | 700/103;<br>705/406;<br>705/409 | 20    |
| 3 | US 6047271 A  | 20000404   | Danford-Klein;<br>Henrik et al.   | 705/400    | 705/401;<br>705/402             | 20    |
| 4 | US 6041318 A  | 20000321   | Danford-Klein;<br>Henrik et al.   | 705/400    | 705/401;<br>705/402             | 19    |
| 5 | US 6035291 A  | 20000307   | Thiel; Wolfgang                   | 705/408    | 177/25.15                       | 51    |
| 6 | US 5699258 A  | 19971216   | Thiel; Wolfgang                   | 705/409    | 705/401;<br>705/410             | 13    |
| 7 | US 5117364 A  | 19920526   | Barns-Slavin;<br>Ileana D. et al. | 705/402    | 177/25.15;<br>705/407           | 12    |

L11 results

|   | Type | L # | Hits   | Search Text   | DBs   | Time Stamp          |
|---|------|-----|--------|---|---|---------------------|
| 1 | BRS  | L1  | 2560   | (pc or computer or client or station or work or workstation) near5 (postage or franking or mailing)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>16:56 |
| 2 | BRS  | L2  | 114231 | (mailing or frank or mail or post or franking or shipment or shipping or ship or convey or conveying or transport or transported or transporting or transportation) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>16:56 |
| 3 | BRS  | L3  | 4341   | 2 near5 (determine or determined or determining or determination or calculate or calculated or calculating or calculation or estimate or estimated or estimating or estimation or predict or predicted or predicting or prediction)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>16:57 |
| 4 | BRS  | L4  | 213    | 3 near5 (pc or computer or client or station or work or workstation)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>16:57 |

|   | Type | L # | Hits | Search Text                                | DBs   | Time Stamp          |
|---|------|-----|------|--|---|---------------------|
| 5 | BRS  | L5  | 88   | 1 and 4<br><i>Scanned Ti, Ab, Kwic all</i> | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2005/05/23<br>16:57 |

|   | Document ID          | Issue Date | Inventor                              | Current OR | Current XRef  | Pages |
|---|----------------------|------------|---------------------------------------|------------|---|-------|
| 1 | US 4796196 A         | 19890103   | Durst, Jr.;<br>Robert T. et al.       | 700/224    | 209/3.3;<br>209/584;<br>235/375;<br>700/227   | 26    |
| 2 | US 4940887 A         | 19900710   | Sheng-Jung; Wu                        | 235/381    | 177/25.15;<br>235/375;<br>235/376;<br>235/377;<br>235/383;<br>235/432;<br>700/224;<br>705/406;<br>705/407;<br>705/408 | 15    |
| 3 | US 5819240 A         | 19981006   | Kara; Salim G.                        | 705/408    | 700/235;<br>705/410   | 37    |
| 4 | US 6005945 A         | 19991221   | Whitehouse;<br>Harry T.               | 380/51     |   | 25    |
| 5 | US 6035291 A         | 20000307   | Thiel; Wolfgang                       | 705/408    | 177/25.15   | 51    |
| 6 | US 6175825 B1        | 20010116   | Fruechtel;<br>Ingrid                  | 705/404    | 705/30;<br>705/410  | 15    |
| 7 | US 6321214 B1        | 20011120   | Thiel; Wolfgang                       | 705/408    |   | 47    |
| 8 | US 20020023057<br>A1 | 20020221   | Goodwin,<br>Johnathan David<br>et al. | 705/50     |   | 97    |
| 9 | US 6477514 B1        | 20021105   | Gil; Asher et<br>al.                  | 705/410    | 177/25.15;<br>705/400;<br>705/407   | 54    |

LS results

US-PAT-NO: 4940887

DOCUMENT-IDENTIFIER: US 4940887 A

\*\*See image for Certificate of Correction\*\*

TITLE: Automatic mail handling and postage vending machine

DATE-ISSUED: July 10, 1990

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
|------|------|-------|----------|---------|

|                |        |     |     |     |
|----------------|--------|-----|-----|-----|
| Sheng-Jung; Wu | Taipei | N/A | N/A | N/A |
|----------------|--------|-----|-----|-----|

US-CL-CURRENT: 235/381, 177/25.15 , 235/375 , 235/376 , 235/377 , 235/383 , 235/432 , 700/224 , 705/406 , 705/407 , 705/408

ABSTRACT: A computerized handling device automatically processes mail items. The device includes a housing, a coin identifying and changing device, and a microcomputer controller, and has an inlet for mail items. Also included are mechanisms for causing the return of a mail item to a user, for conveying a mail item to a weighing station, to enable a user to select a desired mail classification, for calculating the appropriate postage for a mail item, for indicating to a user the weight of and postage due on a mail item, for receiving payment from a user, for verifying the payment against the postage due on a mail item, for automatic stamping a postage marking on the mail item at a postage marking station and for sorting mail items in accordance with their classification. The device is constructed so that varied weight and classifications of mail items can be processed through an interactive action with the user.

17 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

----- KWIC -----

Abstract Text - ABTX (1): A computerized handling device automatically processes mail items. The device includes a housing, a coin identifying and changing device, and a microcomputer controller, and has an inlet for mail items. Also included are mechanisms for causing the return of a mail item to a user, for conveying a mail item to a weighing station, to enable a user to select a desired mail classification, for calculating the appropriate postage for a mail item, for indicating to a user the weight of and postage due on a mail item, for receiving payment from a user, for verifying the payment against the postage due on a mail item, for automatic stamping a postage marking on the mail item at a postage marking station and for sorting mail items in accordance with their classification. The device is constructed so that varied weight and classifications of mail items can be processed through an interactive action with the user.

Brief Summary Text - BSTX (7): In accordance with the invention, there is provided an automatic mail handling device including a housing, a coin identifying and changing device, and a microcomputer controller, and having an inlet for mail items, means, for example a button, operable by the user for causing the return of a mail item to a user, means for conveying a mail item to a weighing station, means to enable a user to select

a desired mail classification, means for calculating the appropriate postage for a mail item in dependence upon the weight and mail classification thereof, indicating means for indicating to a user the weight of and postage due on a mail item, means, for example, a coin, banknote, or credit card slot, for receiving a payment token from a user, means for verifying the payment token against the postage due on a mail item, means for transporting mail items automatically on verification of the payment, means for sorting mail items in accordance with their classification and means for enabling the output from the device of the total of numbers of items and postage amounts for each mail classification.

Detailed Description Text - DETX (20): In the device illustrated, an electronic weighing machine is used to weigh mail and to calculate the postage automatically so that problems of inadequate postage caused by overweight mail or senders' misunderstanding suitable postage may be avoided. It is also easy to revise the computer program to adapt to new postage rates.



US-PAT-NO: 6005945

DOCUMENT-IDENTIFIER: US 6005945 A

TITLE: System and method for dispensing postage based on telephonic or web milli-transactions

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

| NAME                 | CITY           | STATE |
|----------------------|----------------|-------|
| Whitehouse; Harry T. | Portola Valley | CA    |

US-CL-CURRENT: 380/51

ABSTRACT: A system for electronic distribution of postage includes at least one secure central computer for generating postal indicia in response to postage requests submitted by end user computers, and at least one postal authority computer system for processing the postal indicia on mail pieces. A key aspect of the system is that all secure processing required for generating postal indicia is performed at secure central computers, not at end user computers, thereby removing the need for specialized secure computational equipment at end user sites. A secure central computer includes a database of information concerning user accounts of users authorized to request postal indicia from the secure central computer. A request validation procedure authenticates received postage requests with respect to the user account information in the database. A postal indicia creation procedure, applies a secret encryption key to information in each authenticated postage request so as to generate a digital signature and combines the information in each authenticated postage request with the corresponding generated digital signature so as to generate a digital postage indicium in accordance with a predefined postage indicium data format. A communication procedure securely transmits the generated digital postage indicium to the requesting end user computer. Each end user computer typically includes a communication procedure for sending postage requests to a secure central computer at which a user account has been established, and for receiving a corresponding digital postage indicium. A postage indicium printing procedure prints a postage indicium in accordance with the received digital postage indicium.

12 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

----- KWIC -----

Abstract Text - ABTX (1): A system for electronic distribution of postage includes at least one secure central computer for generating postal indicia in response to postage requests submitted by end user computers, and at least one postal authority computer system for processing the postal indicia on mail pieces. A key aspect of the system is that all secure processing required for generating postal indicia is performed at secure central computers, not at end user computers, thereby removing the need for specialized secure computational equipment at end user sites. A secure central computer includes a database of information concerning user accounts of users authorized to request postal indicia from the secure central computer. A request validation procedure

authenticates received postage requests with respect to the user account information in the database. A postal indicia creation procedure, applies a secret encryption key to information in each authenticated postage request so as to generate a digital signature and combines the information in each authenticated postage request with the corresponding generated digital signature so as to generate a digital postage indicium in accordance with a predefined postage indicium data format. A communication procedure securely transmits the generated digital postage indicium to the requesting end user computer. Each end user computer typically includes a communication procedure for sending postage requests to a secure central computer at which a user account has been established, and for receiving a corresponding digital postage indicium. A postage indicium printing procedure prints a postage indicium in accordance with the received digital postage indicium.

Brief Summary Text - BSTX (3): U.S. Pat. No. 5,319,562, entitled "System and Method for Purchase and Application of Postage Using Personal Computer," describes a cost-effective alternative to the classic mechanical or electromechanical postage metering devices used in the commercial business environment for the past 50 years.

Brief Summary Text - BSTX (5): In 1996 the US Postal Service published in the Federal Register draft specification for a system (coined the IBIP or Information Based Indicia Program) using the same basic concepts presented in U.S. Pat. No. 5,319,562. However, the USPS added a number of security and operational requirements that add substantially to the initial and ongoing cost of fielding a PC-based postage meter. The added USPS requirements have essentially priced the technology out of the reach of the small PC-based mailer, with monthly costs estimated to be more than a conventional entry-level mechanical or electro-mechanical meter.

Brief Summary Text - BSTX (6): This document describes a method of electronically dispensing postage using PC-based system that retains the cost viability of the original PC-based postage application system disclosed in U.S. Pat. No. 5,319,562, while simultaneously meeting the host of additional requirements imposed by the USPS. The present invention also provides the technical means for postal agencies such as the USPS, UK's Royal Mail, or France's La Poste, or the newly-formed Postage Fee-For-Service bureaus, to compete with conventional meter vendors by directly dispensing postage with integral, digitally signed indicia data to end users electronically on a mail piece-by-mail piece basis. The mail piece-by-mail piece disbursement approach has strong parallels to so-called "micro-transactions" or "milli-payments," which are the subject of considerable focus for Internet applications.

Brief Summary Text - BSTX (29): In particular, the representation in FIG. 3 or a "customer provided input" is generalized to cover a standard PC keyboard/mouse as well as a postage meter keypad, scanner, PC-based controller, or other device.

Brief Summary Text - BSTX (45): While the users PC could perform the necessary digital encryption process, it is well known that the standard PC environment can be monitored, and encryption computations that can be monitored can eventually be

deciphered by an attacker. Therefore, the USPS has firmly rejected the use of the user's PC to perform encryption tasks. Instead, the USPS has specified that any PC performing postage metering and postage acquisition function will have use a PSD that meets FIPS-140 standards. This secure device would interact with the user's PC (or the more general Host System) via a serial cable (for instance). The Host System would remain completely ignorant of the message content, and would pass this message either to a printer (for mail piece creation) or to the USPS/Vendor for some type of transaction (such as a postage purchase).

Brief Summary Text - BSTX (65): A system for electronic distribution of postage includes at least one secure central computer for generating postal indicia in response to postage requests submitted by end user computers, and at least one postal authority computer system for processing the postal indicia on mail pieces. A key aspect of the system is that all secure processing required for generating postal indicia is performed at secure central computers, not at end user computers, thereby removing the need for specialized secure computational equipment at end user sites.

Brief Summary Text - BSTX (66): A typical secure central computer includes a data processor; and a database of information concerning user accounts of users authorized to request postal indicia from the secure central computer. A request validation procedure authenticates received postage requests with respect to the user account information in the database. A postal indicia creation procedure, applies a secret encryption key to information in each authenticated postage request so as to generate a digital signature and combines the information in each authenticated postage request with the corresponding generated digital signature so as to generate a digital postage indicium in accordance with a predefined postage indicium data format. A communication procedure securely transmits the generated digital postage indicium to the requesting end user computer.

Brief Summary Text - BSTX (67): Each end user computer typically includes a data processor and a communication procedure for sending postage requests to a secure central computer at which a user account has been established, and for receiving a corresponding digital postage indicium. A postage indicium printing procedure prints a postage indicium in accordance with the received digital postage indicium. Each postage request will typically include a user account identifier that identifies a previously established user account, a source address identifier indicating where a mail piece is to be mailed from, a destination address identifier indicating where the mail piece is to be mailed to, authentication information for authenticating that the postage request is from an end user associated with the specified user account identifier, and data concerning the package size and/or weight sufficient to determine an amount of postage required for the mail piece. Each digital postal indicia will typically include data representing the user account identifier, source address identifier, and destination address identifier in a corresponding on of the postage requests.

Drawing Description Text - DRTX (3): FIG. 1 is a block diagram of a desktop computer-based postage dispensing system as taught in U.S. Pat. No. 5,319,562.

Detailed Description Text - DETX (3): FIG. 4 shows a distribute postage generation system 100 in accordance with a preferred embodiment of the present invention. One or more secure central computers 102 are used as the principle devices for generate postage indicia for many users, who use desktop computers 104 (herein called PC's) to receive the postage indicia and print mail piece labels 105 that each include a corresponding digital postage indicium 107 received from one of the secure central computers 102. The customer PC's contain conventional computer hardware, including a user interface 106 with a printer 108, a data processor (CPU ) 110 for executing programs, a communication interface 112 such as a modem, LAN connection, or Internet connection, for handling communications with one of the secure central computers 102, and local memory 114. The user interface 116 may also include a scale 116 for weighing mail pieces, or a separate scale may be used to provide mail piece weight information.

Detailed Description Text - DETX (9): a local database 130 of information needed by the mail handling procedures, including local account balance information and transaction records representing all recent postage purchase transactions by the customer PC 104.

Detailed Description Text - DETX (16): an indicium generation procedure 168 for generating a sequence of bits representing a postage indicia corresponding to a destination address specified by a customer PC, including a procedure for digitally signing each postage indicium; and

Detailed Description Text - DETX (20): a transaction database 174 for storing records concerning each postage indicium generated by the secure central computer 102 and each postage credit transaction in which funds are added to a user account.

Detailed Description Text - DETX (21): Each secure central computer 102 is also connected by the communication interface 152 to one or more postal service computers 180. The postal service computers 180, which are used to process mail pieces, need access to the databases in the secure central computers when verifying the postage indicia on mail pieces. For instance, if the serial number on a mail piece is sufficiently different from the serial numbers on other mail pieces recently processed for the same meter, the postal service computer may request a copy of the meter's recent postage purchase history to determine if the postal indicia on the mail piece being processed is authentic. More generally, if a postal indicia on a mail piece is determined to be fraudulent, or is merely suspected of being fraudulent, the postal service computer may request data concerning the associated meter from the secure central computer 102 so that the fraud or suspected fraud can be further investigated.

Detailed Description Text - DETX (22): Note that only mail handling software resides in each end user's computer 104. No secure hardware is used at the local site, no USPS ZIP+4 CD-ROM is required locally, and no communications port is consumed for a PSD. The secure computer 102 at a central site contains all of the customer account

information, current balances, a transaction log for each customer, details on each mail piece indicia dispensed, and encryption software and keys. Furthermore, the encryption procedures 122 required for end user computers are relatively modest, because the encryption of client/server messages is used only to protect the privacy of those communications and are not used to protect the generation of postal indicia. This is an important distinction. The secure central computer 102 generates postal indicia using secure mechanisms and transmits the resulting postal bit pattern to the end user's computer for printing on a mailing label or envelope. The encryption of client/server communications helps to prevent casual theft of postal indicia and eavesdropping on the postal indicia requests being made, but nothing more.

Detailed Description Text - DETX (68): Public key reference number (indicating which key was used by the central computer to digitally sign the postage indicium for this postage dispensing event).

Detailed Description Text - DETX (71): Note that storing data on the central computer (with industry-standard backup, of course) offers very distinct advantages over conventional meters or the PSD. The meter balances are stored on computer media rather than secure non-volatile meter registers. Furthermore, the presence of a detailed postage expenditure log on the secure central computer allows for a recompilation of the balances at any time--something that conventional meter technology can't offer.

Detailed Description Text - DETX (73): For convenience and operational speed, a copy of current balance and a transaction log of each postage indicium purchase is kept the on the customer PC. This allows for rapid report generation and balance checking without contacting the secure central computer. These local values may be stored in non-secure files as the ultimate data reference (e.g., the "balance of record, official transaction summaries") is the secure central computer.

Detailed Description Text - DETX (76): Referring to FIGS. 5A-5B and 6, the procedures for validating a postage dispensing request and then dispensing postage for a single mail piece are as follows. The user's computer requests a postage indicium from the secure central computer at which it has a postage dispensing account (200). The request includes the users meter or account ID, the user account password, the destination address is a standardized format suitable for ZIP+4 lookup the postal service class to be used for shipping the mail piece, and the mail piece weight.

Detailed Description Text - DETX (82): In one preferred embodiment, the data included in each postage indicium generated by the central secure computer is as follows:

Detailed Description Text - DETX (86): The user computer decrypts the postage indicium message using the user account private key (218), prints the mail piece label with the indicium and digital signature in the message as a two dimensional barcode, and stores a corresponding transaction record in its local database (220).

Detailed Description Text - DETX (144): Referring to FIG. 7, each postal authority system 180 for processing mail pieces will preferably include at least one data processor 250, a communication interface 252 for transferring information to and from the secure central computers 102, postage scanning stations 253, and memory 254.

Detailed Description Text - DETX (151): a meter information database 270 of information about each licensed postage meter, including electronic postage indicia end user computers; and

Detailed Description Text - DETX (159): Next, the mailing date encoded in the postal indicium and the postage amount are validated (302). The mailing date must be within a predefined number of days of the current date. For instance, postal indicia may expire after 7, or perhaps, 3 days of their issuance by a secure central computer. The postage amount validation requires input regarding the mail piece's weight, as determined by the postage scanning station 253 processing the mail piece, the class of postal service indicated in the postal indicium, and the postage amount indicated in the postal indicium. If either the postal indicium's date is expired and the postage amount is incorrect, the postal indicium is rejected as invalid (302).

Detailed Description Text - DETX (181): If mail indicia automatically expire X days after issuance, the user could simply wait for X days after an unused postage indicium (e.g., due to misprinting or non-use due to the submission of an incorrect address when requesting the postage indicium) and request a refund. The postal authority could check its database to verify that an indicium with the date, meter number and serial number of the allegedly misprinted indicium was never received and processed by the USPS. Since the database of the secure computer used to dispense the postage indicium will verify the date, meter number and serial number of the allegedly misprinted indicium there is no risk that the postal service would issue a refund for a postage indicium that was previously used or useable in the future.

Detailed Description Text - DETX (182): 10. Potential for Smaller Printed Indicium: The present invention offers an opportunity to greatly reduce the information carried by the indicium by transferring relevant data to the secure computer when the indicium is requested, and storing that data in a transaction database. For instance, the complete mailing address could be transmitted to the secure central computer and the resulting indicium data stream would simply carry the ZIP+4+2 and or carrier route for that piece. This would provide sufficient synchronization data in the indicium to cross check against the physical address, but not take the space of an entire address (e.g. The Whitehouse, 1600 Pennsylvania Ave, Washington, DC 20240-1101 would be represented in the indium as 20240110100). If the complete address was required, it could be obtained by matching the unique mail piece meter number and serial number (embedded in the indicium) with the data record stored at the secure site. Data such as piece weight and service class might be omitted from the indicium since they could be referenced in the data record on the secure computer.

Claims Text - CLTX (2): a secure computer for generating postage indicia on behalf of a plurality of user accounts, the secure computer including:

Claims Text - CLTX (3): a communications port for receiving postage requests from end user computers, each received postage requests having request data defining a postage indicium to be created, including user account data;

Claims Text - CLTX (6): a postal indicia creation and distribution mechanism for applying a secret encryption key to information in each authenticated postage request so as to generate a digital postage indicium that is at least partially encrypted with the secret encryption key, and for securely transmitting the generated digital postage indicium to the end user computer that sent a corresponding one of the postage requests;

Claims Text - CLTX (10): the generated digital postage indicium is formatted in a manner suitable for printing on a mail piece or mailing label by the end user computer in a predefined bar code format.

Claims Text - CLTX (12): at least one secure central computer for generating postage indicia in response to postage requests submitted by end user computers, the secure central computer including:

Claims Text - CLTX (17): a communication procedure, executable by the data processor, for securely transmitting the generated digital postage indicium to the end user computer that sent a corresponding one of the postage requests;

Claims Text - CLTX (23): a communication procedure for sending postage requests to one of the at least one secure central computers at which a user account has been established, and for receiving from the one secure central computer a corresponding digital postage indicium; and

Claims Text - CLTX (39): receiving postage requests from end user computers, each received postage request having request data defining a postage indicium to be created, including user account data;

Claims Text - CLTX (42): securely transmitting the generated digital postage indicium to the end user computer that sent a corresponding one of the postage requests;

Claims Text - CLTX (46): the generated digital postage indicium is formatted in a manner suitable for printing on a mail piece or mailing label by the end user computer in a predefined bar code format.

US-PAT-NO: 6175825

DOCUMENT-IDENTIFIER: US 6175825 B1

TITLE: Method for debiting shipping services

DATE-ISSUED: January 16, 2001

INVENTOR-INFORMATION:

| NAME              | CITY   | STATE | ZIP CODE | COUNTRY |
|-------------------|--------|-------|----------|---------|
| Fruechtel; Ingrid | Berlin | N/A   | N/A      | DE      |

US-CL-CURRENT: 705/404, 705/30 , 705/410

**ABSTRACT:** In a method for debiting shipping services on the basis of the respective transport service fee schedules of carriers, accounting operations of the services of various carriers are standardized and simplified by undertaking a central accounting, and the debiting of the services ensues individually or summed. A user program is loaded into a modified postage meter machine that has a printer and a telecommunication unit, at least one service fee table of a carrier being selectable therefrom. The weight or some other physical quantity of a shipment is entered the modified postage meter machine, and a service value is calculated therein in conjunction with the selected shipping parameters. The printer device of the modified postage meter machine prints out an identity ticket that contains the shipping parameters, at least including the shipping fee for the shipment. The information characterizing the shipment are intermediately stored in the modified postage meter machine and the implemented value identification of the shipment is transmitted via a telecommunication connection to a remote data center, either individually or summed. The data received in the data center are acquired, compiled and separately accounted for for each carrier with an accounting program and an invoice is prepared at the data center and is communicated to the consignor for payment. All steps involving storage or handling of funds or monetary credit associated with the shipping service take place exclusively at the data center.

20 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

----- KWIC -----

Brief Summary Text - BSTX (22): German OS 3903718 discloses a postage fee accounting system for which a personal computer is provided in order to produce extensive accounting reports via a connected printer. For monitoring credit of a department-related postage meter machine use, data are transmitted to a chip card, particularly relating to the register contents of the security account. The fetchable information can be displayed and printed out in various formats. This solution can also be applied to other delivery services that require a franking imprint but has all of the disadvantages that have already been recited for a pre-payment. Even if chip cards were allocated for individual carriers, a consignor would have to acquire a corresponding number of credits for the execution of the frankings. This debiting with pre-financing is uneconomical, particularly for consignors with low shipment volume.



Detailed Description Text - DETX (34): Thereafter, the consignor enters a physical quantity value into the computer in step 103, and may also enter further shipment data into the computer in step 104. Based on the entered information, and using the loaded fee table, a service cost for transporting the shipment is calculated in the consignor computer in step 105. In step 106, a blank identity ticket is supplied to a printer at the consignor computer, and a printed identity ticket is produced at the printer in a print operation. The printer prints on the identity ticket a printed representation at least of the service cost, an identifier for the computerized vice, information relating to the print operation, the destination and the carrier for the shipment. The printed identity ticket is affixed to the shipment. If desired, the print operation-related data for each printing can be intermediately stored at the consignor computer, as indicated in step 107. Additionally, the shipment parameter data corresponding to the shipment parameters are intermediately stored at the consignor computer in step 108.